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Valery Grinevich's exceptional research contributions to the study of neuropeptides recognised by the 2021 ECNP Neuropsychopharmacology Award

The European College of Neuropsychopharmacology (ECNP) is pleased to announce Valery Grinevich as the recipient of the 2021 ECNP Neuropsychopharmacology Award, in recognition of his outstanding achievements in advancing the knowledge of neuropeptide signalling in the brain. The ECNP Neuropsychopharmacology Award is presented annually and recognises distinguished research in applied and translational neuroscience.

Valery Grinevich is the chair of the Department of Neuropeptide Research in Psychiatry at the Central Institute of Mental Health in Mannheim, Germany. His work focuses on using ground-breaking viral, opto- and chemogenetical, electrophysiological and behavioural approaches to understanding the effects of neuropeptide mechanisms in the brain – from the molecular to the whole organism level – on stress, fear and social behaviour.

Among his landmark scientific contributions is the discovery that the axonal release of neuropeptides, exemplarily shown for oxytocin, contributes to neuropeptide signalling in the brain, thereby extending a long-standing dogma of passive diffusion of peptides from the source of origin throughout the entire brain. In support of this concept, his team has successfully demonstrated the existence of an oxytocin engram of fear memory, with specific oxytocin circuits transmitting noxious and non-noxious stimuli into pain and social behaviours, respectively.

Most recently, the Grinevich team have identified glial cells as an interesting and behaviourally relevant target of oxytocin. These conceptually novel mechanisms have challenged the neuropeptide field and provided a deep basis for translational studies focused on novel treatments for socioemotional diseases using neuropeptides.

To obtain these findings, his team invented powerful technical tools to label and manipulate peptidergic neurons by cell-type-specific viral vectors, which included the development of ex vivo and in vivo opto- and pharmacogenetics means and their adaptation for the neuropeptide field. These tools have allowed him to selectively control neuropeptide release and subsequently dissect the property and kinetics of endogenous neuropeptide action. Openly sharing these tools with more than 40 labs around the world, he has been able to provide significant stimulus to progress in the field of neuropeptide research internationally.

The results of his team have been extensively published in high-impact journals, including *Neuron* and *Nature Neuroscience*, as well as featuring in international media outlets, such as *The Guardian*, *Die Zeit*, *Le Temps*, ARTE and ARD. A testament to the importance of his research is the support he has attracted from prestigious funding bodies, such as the Heinz and Chica Schaller Foundation, the German Research Foundation (DFG), the Royal Society of Edinburgh, and the Fritz Thyssen Foundation.

In announcing the award, ECNP Award Committee chair Andreas Meyer-Lindenberg, Germany, said,

"Valery Grinevich's achievements in neuropeptide research have been critical in advancing the translational pharmacology of mental and metabolic disorders, and have made him a key figure in European neuropharmacology. His work in deciphering the functional organisation of neuropeptide brain circuits is an outstanding example of the strength and inventiveness and European applied neuroscience, and fully merits the 2021 ECNP Neuropsychopharmacology Award in pre-clinical research."

Valery Grinevich will receive the award during the 34th ECNP Congress on 2-5 October 2021 in Lisbon, Portugal, where he will deliver the ECNP Neuropsychopharmacology Award plenary lecture on 'Oxytocin: new faces of an old peptide'.

The ECNP Neuropsychopharmacology Award recognises innovative and distinguished research achievements in applied and translational neuroscience. The award is granted each year, alternating between basic science and clinical research. The award is accompanied by a prize of €10,000, which the winner may share with junior collaborators.

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ECNP is an independent scientific association whose mission is to advance the science of the brain, promote better treatment and enhance brain health. The annual ECNP Congress attracts some 5,000 scientists and clinicians from across the world to discuss the latest advances in brain research in Europe's largest meeting on brain science. More information about ECNP, its aims and activities, can be found at <u>www.ecnp.eu</u>.

More information on the ECNP Neuropsychopharmacology Award can be found at: <u>www.ecnp.eu/ena-award</u>.

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